

REMARKS

Favorable reconsideration of this application is respectfully requested. Claims 1 and 5 are pending.

Claims 1-5 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,012,007, hereinafter *Fortune*.

The present application is directed to an occupant determining device which can be used to determine, for example, an occupant on the seat and whether the occupant is an adult. The background portion of the present application refers to other known occupant determining devices and points out that these known devices are susceptible of certain drawbacks. For example, depending upon the position of the occupant on the seat and variations in posture of the occupant, erroneous occupant determination may occur. Also, this can cause undesired switching between the occupant determination states (e.g., switching between the determination that the occupant is an adult and the determination that the occupant is not an adult). To avoid such occurrences, some known devices delay the occupant determination to allow for adjustments in seating position and variations in posture. However, this approach may needlessly delay the occupant determination, particularly in situations where reliability about the desired characteristic of the occupant exists (e.g., where it is reliably determined that the occupant is an adult).

One aspect of the occupant determining device at issue here involves the use of first and second threshold values. With two thresholds values, it is possible to earlier set the appropriate occupant determination. For example, when the load on the seat provides a reliable indication that the occupant is an adult, the adult determination can be made in a relatively shorter period of time. On the other hand,

if the load on the seat provides a less certain indication that the occupant is an adult, the adult determination is made after a longer period of time.

Claim 1 is amended to recite some of the subject matter previously recited in Claims 2-4. This subject matter is also discussed in the application, for example in paragraphs [0031]-[0035].

Claim 1 is amended to recite the first determination threshold and the second determination threshold, the latter of which is larger than the former. Claim 1 is also amended to recite control aspects of the controller, namely that if the load value detected by the load sensor falls between the first and second determination thresholds, and if this condition continues for a first time duration, the controller switches the occupant determination state to the adult determination state. On the other hand, if the detected load value exceeds the second determination threshold, and if this condition continues for a second time duration shorter than the first time duration, the controller switches the occupant determination state to the adult determination state.

Thus, when the detected load value exceeds the second determination threshold and continues for a certain period of time, the device can reliably assess that the occupant is an adult and so the controller switches the occupant determination state to the adult determination state. In addition, in those situations where the detected load value exceeds the second determination threshold, the adult determination state can be set earlier as compared to situations in which the detected load value is between the first and second threshold values.

In col. 3, line 48 - col. 4, line 11 of Fortune, an occupant detection method is disclosed having a plurality of variable thresholds, wherein each variable threshold

increases by an increment if a measure is above a minimum activity level for a time T1 (preferably in the range of 30 to 300 second) and decreases by the increment if the measure is below the minimum activity level for a time T2 (preferably less than 1 second). This procedure is illustrated in Figure 6 of Fortune.

Furthermore, as disclosed in col. 4, lines 36-66 of Fortune, a lock threshold and an unlock threshold, each of which are variable thresholds, are compared to a total force that is the sum of sensor outputs. As illustrated in Figure 8 of Fortune, a flag value is incremented or decremented based on the comparisons and also based on whether a lock delay from when the vehicle ignition has been turned on has been reached. When the flag value is greater than zero, an Adult Flag Lock is set and the airbag will always deploy when an impending crash is sensed as illustrated in Figure 9 of Fortune.

As mentioned above, Claim 1 here is amended to recite subject matter similar in respects to some of the subject matter previously recited in dependent Claims 2-4. The Official Action addresses dependent Claims 2-4 by simply quoting the claim language and then referring to col. 3, line 57 - col. 4, line 11 and col. 4, lines 36-57 of Fortune. However, the Official Action does not clearly identify features in Fortune, or portions of the disclosure in Fortune, corresponding to claimed aspects of the occupant determining device. For example, the Official Action does not identify where Fortune describes a first determination threshold and a second determination threshold as claimed.

In any event, a careful reading of the disclosure in Fortune makes clear that Fortune does not disclose a controller which switches the occupant determination state to the adult determination state as claimed -- namely through the use of first

and second determination thresholds (the latter of which is larger than the former), and first and second time durations (the latter of which is shorter than the former). More specifically, Fortune lacks disclosure of a controller switching to the adult determination state sooner under one set of circumstances (i.e., when the detected load value exceeds the second determination threshold and continues for a second time duration) than under different circumstances (i.e., when the detected load value is between the first and second determination thresholds and continues for a first time duration longer than the second time duration).

Accordingly, Claim 1 is allowable over Fortune, and withdrawal of the rejection of Claim 1 under 35 U.S.C. § 102(b) as being anticipated by Fortune is respectfully requested.

If the Examiner continues to believe the disclosure in Fortune is relevant to the claimed subject matter at issue here, the Examiner is kindly asked to identify with specificity the features described in Fortune corresponding to the claimed aspects of the occupant detecting device. For example, the Examiner is asked to identify in Fortune the first and second determination thresholds as claimed, and the first and second time durations as claimed.

Amended Claim 5 is allowable over Fortune for reasons similar to those discussed above with respect to Claim 1.

New independent Claim 6 defines an occupant detecting device which is also distinguishable over the disclosure in Fortune. Claim 6 recites, *inter alia*, that the controller changes the occupant determination state to the adult determination state when the detected load value is between a first determination threshold and a second determination threshold for a first time duration, and changes the occupant

determination state to the adult determination state when the detected load value exceeds the second determination threshold for a second time duration, wherein the second determination threshold is larger than the first determination threshold. The claim goes on to recite that the controller changes the occupant determination state to the adult determination state sooner when the detected load value exceeds the second determination threshold for the second time duration than when the detected load value is between the first and second determination thresholds for the first time duration.

Fortune does not disclose an occupant detection device in which the change to the adult determination state occurs sooner when the detected load value exceeds the second determination threshold than when the detected load value is between the first and second determination thresholds. Thus, new Claim 6 also allowable.

Should any questions arise in connection with this application, the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

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